



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,468	09/05/2003	Russell D. Kidd	HEND-AT-REG (45007-228)	8442
24120	7590	07/14/2004	EXAMINER COHEN, AMY R	
DAVID P DURESKA BUCKINGHAM DOOLITTLE & BURROUGHS, LLP 4518 FULTON DRIVE, NW P O BOX 35548 CANTON, OH 44735-5548			ART UNIT 2859	

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/656,468

Applicant(s)

KIDD ET AL.

Examiner

Amy R Cohen

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-23 is/are rejected.
- 7) ☒ Claim(s) 2 and 3 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/26/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4-8, 16, 17, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Davis (U. S. Patent No. 3,686,770).

Davis teaches a vehicle alignment measurement apparatus (Fig. 1), said vehicle including a trailer having a kingpin (16) for removably connecting said trailer to a tractor and a plurality of wheels (4) mounted on at least one axle (2, 3) suspended from said trailer, said vehicle alignment measurement apparatus comprising: a first reference member (37) removably mountable on said kingpin of said trailer; and a wheel extender assembly (20) removably mountable on selected ones of said wheels, said extender assembly having a second reference member (11-14) alignable with a centerline of said axle on which the selected wheel is mounted (Fig. 1), whereby a distance between said first reference member and said second reference member is measurable to determine the alignment of said axle relative to said kingpin (Col 1, line 38-Col 2, line 17).

Davis teaches the vehicle alignment measurement apparatus comprising at least two of said wheel extender assemblies (Fig. 1); wherein each of said wheel extender assemblies is removably mountable on a separate respective selected wheel of said vehicle (Fig. 1).

Davis teaches the vehicle alignment measurement apparatus, wherein said wheel extender assemblies are connected to separate respective wheels that are mounted on the same axle of the vehicle (Fig. 1).

Art Unit: 2859

Davis teaches the vehicle alignment measurement apparatus, wherein said wheel extender assemblies are connected to separate respective wheels that are mounted on different axles of the vehicle (Fig. 1).

Davis teaches the vehicle alignment measurement apparatus wherein the first reference member includes an adapter plate (37).

Davis teaches the vehicle alignment measurement apparatus wherein said distance is measured with a tape extensometer (Col 1, line 38-Col 2, line 17).

Davis teaches a method for measuring the alignment of a vehicle, said vehicle including a trailer having a kingpin for removably connecting said trailer to a tractor and a plurality of wheels mounted on at least one axle suspended from said trailer, said method comprising the steps of (Col 1, line 38-Col 2, line 17): removably mounting a first reference member on said kingpin of said trailer (Col 2, lines 28-52); selecting a wheel (Col 2, lines 28-52); removably mounting a wheel extender assembly on the selected wheel (Col 2, lines 28-52), said extender assembly having a second reference member alignable with a centerline of said axle on which the selected wheel is mounted (Fig. 1); and measuring a distance between said first reference member and said second reference member to determine the alignment of said axle relative to said kingpin (Col 1, line 38-Col 2, line 17).

Davis teaches the method wherein the step of measuring includes measuring said distance with a tape extensometer (Col 1, line 38-Col 2, line 17).

Davis teaches a method for measuring the alignment of a vehicle, said vehicle including a trailer having a plurality of wheels mounted on at least a pair of axles suspended from said trailer (Col 1, line 38-Col 2, line 17), said method comprising the steps of: selecting a wheel mounted on a front axle of said vehicle (Col 2, lines 28-52); removably mounting a first wheel extender

Art Unit: 2859

assembly on the selected wheel mounted on the front axle of the vehicle (Col 2, lines 28-52), said first wheel extender assembly having a first reference member alignable with a centerline of said front axle (Fig. 1); selecting a wheel mounted on a rear axle of said vehicle (Col 2, lines 28-52); removably mounting a second wheel extender assembly on the selected wheel mounted on the rear axle of the vehicle (Col 2, lines 28-52), said second wheel extender assembly having a second reference member alignable with a centerline of said rear axle (Fig. 1); and measuring a distance between said first reference member and said second reference member to determine the alignment of one of said front and rear axles relative to the other of said front and rear axles (Col 1, line 38-Col 2, line 17).

3. Claims 9, 13, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Cobb (U. S. Patent No. 6,397,448).

Cobb teaches a vehicle alignment measurement apparatus (18), said vehicle including a trailer having a pair of spaced-apart, parallel, longitudinally-extending frame rails (20, 22) connected to a bottom of said trailer, and further including a kingpin (25) for removably connecting said trailer to a tractor, said vehicle alignment measurement apparatus comprising: a first reference member removably mountable on said kingpin of said trailer (Col 3, lines 24-32 and lines 39-64, Cobb states in lines 24-32 that the reference point may be at the kingpin, in lines 39-64, the specific example used is that the reference point is removably mountable to a beam, 32, however, as stated, this could be on the kingpin); and a rail extender assembly (26) removably mountable on selected ones of said frame rails (Col 3, lines 30-38), said extender assembly having a second reference member (26) disposed perpendicular to said selected rail, whereby a distance between said first reference member and said second reference member is

Art Unit: 2859

measurable to determine the alignment of said frame rail relative to said kingpin (Col 3, line 16-Col 4, line 51).

Cobb teaches the vehicle alignment measurement apparatus wherein the first reference member includes an adaptor plate (side of 26, Fig. 4).

Cobb teaches a method for measuring the alignment of a vehicle, said vehicle including a trailer having a pair of spaced-apart, parallel, longitudinally-extending frame rails connected to a bottom of said trailer, and further including a kingpin for removably connecting said trailer to a tractor, said method including the steps of: removably mounting a first reference member on said kingpin of said trailer; selecting a frame rail; removably mounting a rail extender assembly on the selected rail, said extender assembly having a second reference member disposed perpendicular to said selected rail; and measuring a distance between said first reference member and said second reference member to determine the alignment of said frame rail relative to said kingpin (Col 3, line 16-Col 4, line 51).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10-12, 14, 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Cobb in view of Jarman et al. (U. S. Patent No. 4,610,093).

Cobb discloses the vehicle alignment measurement apparatus as described above in paragraph 3 and wherein the frame rails include orifices (Fig. 1).

Cobb discloses the vehicle alignment measurement apparatus wherein a first one of said selected frame rail orifices is formed in a curb side frame rail, and wherein a second one of said selected frame rail orifices is formed in a driver's side frame rail and is transversely aligned with the first one of said selected frame rail orifices (Figs. 1 and 3).

Cobb does not disclose a vehicle alignment measurement apparatus wherein the rail extender assembly includes: a base having a diameter which is larger than a diameter of selected ones of orifices formed in said frame rails; a shaft extending axially from the base; said second reference member disposed on an end of the shaft opposite the base; and a positioning member that includes a tapered outer surface which engages a selected one of said frame rail orifices, and defines a central bore that receives the shaft, whereby said second reference member is centered relative to the selected one of said frame rail orifices; comprising two of said rail extender assemblies, and wherein the first of two said rail extender assemblies is mountable in said first one of said selected frame rail orifices and the second of two said rail extender assemblies is mountable in said second one of said selected frame rail orifices; wherein distances are measured with a tape extensometer.

Jarman et al. discloses a vehicle alignment measurement apparatus (Fig. 1) wherein the rail extender assembly includes: a base (28) having a diameter which is larger than a diameter of selected ones of orifices formed in said frame rails (Fig. 5); a shaft (22) extending axially from the base; said second reference member (34) disposed on an end of the shaft opposite the base (Fig. 4); and a positioning member (54) that includes a tapered outer surface which engages a selected one of said frame rail orifices, and defines a central bore that receives the shaft, whereby said second reference member is centered relative to the selected one of said frame rail orifices (Figs. 3-5); comprising two of said rail extender assemblies, and wherein the first of two said rail

Art Unit: 2859

extender assemblies is mountable in said first one of said selected frame rail orifices and the second of two said rail extender assemblies is mountable in said second one of said selected frame rail orifices (Figs. 1 and 2); wherein distances are measured with a tape extensometer (21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the vehicle alignment measurement apparatus of Cobb to have a rail extender assembly, as taught by Jarman et al., so that the rail extender could be secured by means other than magnetic and so that it could be positioned more selectively in the orifices of the frame rails.

6. Claims 15, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of Cobb.

Davis discloses the vehicle alignment measurement apparatus and method of measuring the alignment of a vehicle as described above in paragraph 2.

Davis does not disclose a vehicle alignment measurement apparatus and method of measuring the alignment of a vehicle comprising a third reference member removably mountable on selected ones of said frame rails and measuring a distance between the first reference member and said third reference member to determine the alignment of said frame rail relative to said kingpin.

Cobb discloses a vehicle alignment measurement apparatus (18), said vehicle including a trailer having a pair of spaced-apart, parallel, longitudinally-extending frame rails (20, 22) connected to a bottom of said trailer, and further including a kingpin (25) for removably connecting said trailer to a tractor, said vehicle alignment measurement apparatus comprising: a first reference member removably mountable on said kingpin of said trailer (Col 3, lines 24-32 and lines 39-64, Cobb states in lines 24-32 that the reference point may be at the kingpin, in lines

Art Unit: 2859

39-64, the specific example used is that the reference point is removably mountable to a beam, 32, however, as stated, this could be on the kingpin); and a rail extender assembly (26) removably mountable on selected ones of said frame rails (Col 3, lines 30-38), said extender assembly having a second reference member (26) disposed perpendicular to said selected rail, whereby a distance between said first reference member and said second reference member is measurable to determine the alignment of said frame rail relative to said kingpin (Col 3, line 16-Col 4, line 51).

Cobb discloses the vehicle alignment measurement apparatus wherein the first reference member includes an adaptor plate (side of 26, Fig. 4).

Cobb discloses a method for measuring the alignment of a vehicle, said vehicle including a trailer having a pair of spaced-apart, parallel, longitudinally-extending frame rails connected to a bottom of said trailer, and further including a kingpin for removably connecting said trailer to a tractor, said method including the steps of: removably mounting a first reference member on said kingpin of said trailer; selecting a frame rail; removably mounting a rail extender assembly on the selected rail, said extender assembly having a second reference member disposed perpendicular to said selected rail; and measuring a distance between said first reference member and said second reference member to determine the alignment of said frame rail relative to said kingpin (Col 3, line 16-Col 4, line 51).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the vehicle alignment measurement apparatus and method of measuring the alignment of a vehicle of Davis to include a third reference member to measure the alignment of the frame rail, as taught by Cobb, in order to have another method to check the alignment of a

Art Unit: 2859

trailer to further ensure its overall alignment and in order to avoid excessive wear on the tires and continuous maintenance (Cobb, Col 1, lines 37-49).

Allowable Subject Matter

7. Claims 2 and 3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Allowance

8. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not disclose or suggest a vehicle alignment measurement apparatus including a plurality of alignment bars that are spaced about said centerline of said axle on which said selected wheel is mounted, and the bars extend parallel to said centerline, wherein each alignment bar engages a selected stud of said selected wheel; a cylindrical wheel extender slidably disposed between the spaced alignment bars, wherein the inboard end contacts a surface of said selected wheel in combination with the remaining limitations of the claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents disclose alignment devices Warkotsch (U. S. Patent No. 6,282,799), Healy et al. (U. S. Patent No. 5,625,953), Jackmauh (U. S. patent No. 5,546,665), mason (U. S. Patent No. 4,577,413), Bullock, Sr. (U. S. Patent No. 4,546,548), Dean (U. S.

Art Unit: 2859

Patent No. 4,055,899), Friend (U. S. Patent No. 3,869,804), Nolte et al. (U. S. Patent No. 3,691,642), and Bohlen et al. (U. S. Patent No. 3,279,084).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy R Cohen whose telephone number is (571) 272-2238. The examiner can normally be reached on 8 am - 5 pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ARC
July 12, 2004



Diego Gutierrez
Supervisory Examiner
Tech Center 2800